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## Patent Abstracts of Japan

PUBLICATION NUMBER : 09195040  
PUBLICATION DATE : 29-07-97

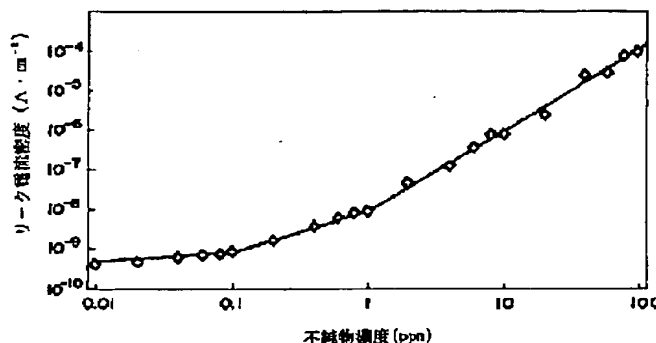
APPLICATION DATE : 06-04-94  
APPLICATION NUMBER : 06068602

APPLICANT : MITSUBISHI MATERIALS CORP;

INVENTOR : ZEN HIDEKI;

INT.CL. : C23C 14/34 C01G 21/22 C23C 14/08

TITLE : TARGET MATERIAL FOR FORMING  
HIGH PURITY DIELECTRIC THIN FILM



ABSTRACT : PURPOSE: To obtain a target material capable of forming a dielectric thin film small in leakage current by a sputtering method, in a target composed of a perovskite type lead-contg. compound, by regulating the content of alkali metal impurities.

CONSTITUTION: This target material is the one for forming a dielectric thin film by a sputtering method and is composed of a perovskite lead-contg. compound expressed by the general formula of  $\text{PbAO}_3$  (A denotes one or more kinds among Mg, Ba, Sr, Ca, Ta, Nb, Co, Fe, Ni, W, Zn and Cd and is tetravalent as the whole of A). Then, it is composed of a sintered body of a mixture in which metallic oxide powder obtd. from the organic metallic compound in which each componental metal is refined is mixed so as to regulate prescribed compositional ratios expressed by the general formula, the content of alkali metal impurities in the sintered body is regulated to  $\leq 1\text{ppm}$ , and preferably, the total content of U and Th is regulated to  $\leq 10\text{ppb}$ . Thus, the dielectric thin film in which the content of alkali metal impurities is regulated to  $\leq 1\text{ppm}$  and the total content of U and Th is regulated to  $\leq 10\text{ppb}$  can be formed.

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